

APPENDIX J - Preparation Guidelines for Project  
Information Report

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## APPENDIX J - Preparation Guidelines for Project Information Report

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### **Use of Project Information Report**

The Project Information Report (PIR) is used for projects in the Traffic Systems Management (TSM) Program. It is the programming document used by an agency proposing to implement a project with funding through the TSM plan. The format is prescribed in the most current *TSM Program Guidelines* adopted by the California Transportation Commission (CTC). For projects on state highways these are HB4N, HB5 and HB6 projects and the PIR takes the place of the Project Study Report (PSR). It should be noted however that an identical project with funding proposed from some other source other than TSM would require the preparation of a PSR instead of a PIR.

### **Report Format**

The PIR is prepared and submitted using the PIR form included in the following pages. These forms were copied from Appendix A of the *TSM Program Guidelines*. The Traffic Operations Program prepares these guidelines for CTC adoption. Each PIR should contain all of the information described.

### **Advisory**

The PIR is an engineering report and must be prepared under the direction of a registered civil engineer. A sheet should be inserted behind the PIR cover sheet, containing the following statement and the stamp or seal and signature of the engineer in responsible charge:

"This Project Information Report has been prepared under the direction of the following registered civil engineer. The registered civil engineer attests to the technical information contained herein and the engineering data upon which recommendations, conclusions, and decisions are based."

APPENDIX A

**TSM PROJECT INFORMATION REPORT<sup>1</sup>**

**Name Of Implementing Agency**  
District/County/Route or Street/ Kilometer Post (Postmile)  
Project Fiscal Year

Vicinity Map  
(or Street Map)

Show:

- Project Limits
- Adjacent Facilities
- North Arrow

Type of Project \_\_\_\_\_  
On Route (or Street) \_\_\_\_\_  
Between \_\_\_\_\_  
And \_\_\_\_\_  
In (City or County) \_\_\_\_\_

PREPARED BY: \_\_\_\_\_ Date \_\_\_\_\_  
Title: \_\_\_\_\_

APPROVED BY: \_\_\_\_\_ Date \_\_\_\_\_  
Project Manager

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<sup>1</sup> Six (6) copies of the report should be submitted to the District Director by September 1 of the year preceding the fiscal year of the TSM plan. See the Regional Agency for number of copies required.

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**SECTION 1. IDENTIFICATION OF THE PROJECT AND AGENCY**

- A. Project Title.
- B. Name and address of the agency responsible for the project.
- C. Names and addresses of other participating agencies.
- D. Name, title, telephone number, and FAX number of the person responsible for the contents of this project information report.
- E. Name, title, address, telephone number, and FAX number of the project manager.

**SECTION 2. PROJECT DESCRIPTION**

- A. Describe in detail the work that would be funded under the proposed project.  
Describe specifically the land, equipment or facilities to be constructed or acquired as part of the project.
- B. Is the project single phased or part of a multi-phased project?
- C. Enclose an 216mm x 279mm (8 1/2 inch x 11 inch) project location map showing existing roadway features and proposed work (i.e. spacing between intersections, geometric details, equipment location, etc.)

**SECTION 3. PROJECT STATUS AND SCHEDULE**

- A. Is the project consistent with a Congestion Management Program?
- B. Describe any environmental mitigation measures and/or unresolved environmental issues.
- C. Include a schedule for implementation including, **but not limited to the following:**
  - 1. Environmental Compliance
  - 2. Agreement Signed<sup>2</sup>
  - 3. Encroachment Permit
  - 4. Consultant Contract
  - 5. Plans, Specifications & Estimate
  - 6. Allocation Request
  - 7. Right of Way Acquisition
  - 8. Advertise Contract
  - 9. Contract Awarded
  - 10. Begin Construction
  - 11. End Construction
  - 12. Final Expenditure Report
  - 13. Final Audit
  - 14. Other Key Milestones

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<sup>2</sup> If a project involves more than one jurisdiction, a letter of agreement between all parties is required.

#### SECTION 4. PROJECT NEED AND BENEFITS

##### A. Project Need.

1. Describe in detail the congestion problem that this project will mitigate.
2. Describe the traffic conditions on the roadways affected by the project including adjacent streets and highways. Include the current and proposed average daily traffic, peak hour volumes, operating speeds and delay.

##### B. Project Benefits

1. Time Savings: Estimate the annual delay reduction (in dollars) resulting from the project. Include all calculations and assumptions used in making this calculation. Where appropriate, use the formula and time values in Attachment 1.
2. Person-Trip Capacity: Estimate the increase in the number of person-trips that could be carried on the street and/or highway system as a result of the project. Include all calculations and assumptions used to derive the estimate.
3. Level Of Service: Describe the current and expected level of service as a result of the project. Describe the basis for the above projection.
4. Congestion Management Program: Describe the relationship of the proposed project to other projects in the area, and its importance in implementing the area's Congestion Management Program.

#### SECTION 5. CAPITAL COSTS

Estimate the total capital cost of the project. The costs shall include all labor, materials, tools, equipment and incidentals necessary to complete the project. Provide a detailed breakdown of the capital costs including, **but not limited to the following**:

##### A. Equipment Costs

- |                                |                              |
|--------------------------------|------------------------------|
| 1. Motorist Information System | 2. Closed Circuit Television |
| System                         |                              |
| Changeable Message Signs       | Central Control & Switching  |
| Trailblazer Sign               | Cameras/Monitors             |
| Highway Advisory Radio         |                              |
| Master Controller              |                              |

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- |  |  |
|--|--|
| <p>3. Communication System</p> <ul style="list-style-type: none"><li>Trunk Cable</li><li>Underground Conduit</li><li>Communication Hardware</li><li>Intertie with Traffic Operations Center</li></ul>                                  | <p>4. Software<sup>3</sup></p> <ul style="list-style-type: none"><li>Expert System</li><li>Operating System</li></ul>                      |
| <p>5. Traffic Operations Center</p> <ul style="list-style-type: none"><li>Map Display</li><li>Media Communication Equipment</li><li>Mainline Computer</li><li>Changeable Message Sign Display</li><li>Computer Workstations</li></ul>  | <p>6. Ramp Metering Systems</p> <ul style="list-style-type: none"><li>Detector Loops</li><li>Signal Equipment</li><li>Controller</li></ul> |
| <p>7. Traffic Signal Systems</p> <ul style="list-style-type: none"><li>Interconnect Cable</li><li>Controllers</li><li>Cabinets</li><li>Detector Loops</li><li>Pullboxes</li><li>Conduits</li><li>Emergency Vehicle Detection</li></ul> |  |

B. Right Of Way Costs

1. Acquisition (including excess lands and damages to remainder)
2. Utility Relocation
3. Clearance/Demolition
4. Relocation Assistance
5. Title and Escrow Fees
6. Construction Contract Work

C. Roadway Costs<sup>4</sup>

- |   |  |
|---|--|
| <p>1. Earthwork Items</p> <ul style="list-style-type: none"><li>Excavation/Backfill</li><li>Grading</li><li>Clearing &amp; Grubbing</li></ul> | <p>2. Structural Section Items</p> <ul style="list-style-type: none"><li>Pavement</li><li>Base/Subbase</li></ul> |
|---|--|

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<sup>3</sup> Commercially Available - Software development costs are not to be included in this item.

<sup>4</sup> Example of roadway work: widening for High Occupancy Vehicle bypass lanes, California Highway Patrol enforcement pads, turning lanes, intersection channelization, mainline High Occupancy Vehicle lanes, auxiliary lanes, and park and ride facilities, etc.

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- |                          |                        |
|--------------------------|------------------------|
| 3. Drainage Items        | 4. Structures          |
| Culverts                 | Bridge Modifications   |
| Catch Basins/Drop Inlets | Building Modifications |
| 5. Traffic Control Items | 6. Miscellaneous Items |
| Lane Closures            | Retaining Walls        |
| Detours                  | Barriers/Guardrails    |
|                          | Curbs/Gutters          |

D. Other costs not specifically mentioned in A through C.

E. Contingencies - Maximum 25% of total estimated capital cost.

**SECTION 6. CAPITAL SUPPORT COSTS<sup>5</sup>**

Provide a detailed explanation and estimate for capital support costs. Capital support costs may be provided by the applicant or a consultant. Capital support costs include the following:

A. Project Development

1. Environmental Study
2. Design Engineering (Plans, Specifications, and Estimate)
3. Software Development (Note: software must be directly related to system operation)

B. Construction Engineering

1. Contract Administration
2. Inspection

C. Signal Timing Plan Development

1. Optimization
2. Simulation
3. Implementation

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<sup>5</sup> Maximum support cost allowed is 35% of the total estimated capital cost. See Financial Guidelines for details and requirements for reimbursement of costs.



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### ATTACHMENT 1 TYPICAL TIME SAVINGS CALCULATION

Calculate the time savings index (TSI) as follows:

$$TSI = \frac{PWF \times [(C \times B \times D) \pm M \pm O] \times 100}{COST}$$

where,

PWF = Present Worth Factor  
For "PWF" use the following:

<u>Project Life (years)</u>	<u>Project Type</u>	<u>PWF</u>
5 .....	computer hardware/software .....	4.3
10 .....	signing, striping .....	7.8
15 .....	<i>Operational</i> .....traffic signal, surveillance, motorist .....	10.5
	<i>Improvements</i> .....information, communication, ramp metering	
20 .....	<i>Geometric</i> .....turning/auxiliary lanes, ramp widening, .....	12.6
	<i>Improvements</i> .....bus turnouts, high occupancy vehicle lanes/bypass, park and ride facilities	

C = Cost per vehicle-minute  
For "C" use the following:

<u>Percent Trucks</u>	<u>C" Cost per Vehicle-Minute</u>
0-2	\$0.12
3-7	\$0.13
8-12	\$0.14
13-17	\$0.15
18-22	\$0.16
23-27	\$0.17
28-32	\$0.18

B = Daily delay savings in vehicle-minutes (i.e. delay reduction resulting from the project).

D = # days per year the problem exists  
For "D" use the following:

Weekend Traffic	D = 115
Recurrent Weekday Traffic	D = 250
Daily Traffic	D = 365

M = Annual maintenance cost in dollars (subtract cost increases or add cost decreases in TSI calculation).

O = Annual operating cost in dollars (subtract cost increases or add cost decreases in TSI calculation).

COST = Capital cost (i.e. R/W and construction)